

Disposal of the Remains of Burned Structures

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Why Not Burn Structures?

Property owners often think of burning structures instead of demolishing them because burning reduces the amount of demolition material that needs to be removed.

The problem is, burning structures create large amounts of smoke which may contain hazardous substances. The smoke may affect the health of persons nearby, create localized odors and can contaminate land and water downwind. In particular, the open burning of materials like carpeting, shingles, electrical wiring and appliances, plastic pipes, drywall and paint may emit hazardous air pollutants such as dioxins, heavy metals and airborne asbestos, which is a carcinogen.

For these reasons, Wisconsin's air and waste laws prohibit burning structures (see chs. NR 429.04 and 502.11, Wis. Adm. Code, in chs. [NR 429](#) and [NR 502](#), respectively), under all but very limited circumstances (addressed under "Fire Training Exercises").

Fire Training Exercises

When Fire Departments do annual or initial fire training exercises, they may want to practice fighting fires in real structures. Fire departments may burn existing structures if the burn is conducted in accordance with applicable laws (see s. NR 502.11(2)(c), Wis. Adm. Code in [ch. NR 502](#)).

If your local Fire Department plans to burn your home or other building, you (the property owner) must ensure there are no asbestos-containing materials in the structure. This will protect the health of the firefighters and others who may come into contact with the smoke or ash.

First, you must comply with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations (see [ch. NR 447](#)) which were required by the Clean Air Act. The property must be inspected by a certified asbestos inspector, all asbestos material must be removed, and [the Notification of Demolition Form 4500-113](#) must be completed and postmarked or hand-delivered to the Department at least 10 working days prior to the planned burn. Your Fire Department may also need to submit any applicable fees. When the notification form has been properly submitted, the Fire Department may burn the structure without your having to obtain a burning permit as well.

NOTE: If a demolition method other than burning is used, the asbestos NESHAP requirements must be met only for commercial and developmental projects. Single (that is, one structure only), isolated (that is, not part of a larger project) residential-type structures are exempt from the asbestos NESHAP

requirements, except when such structures are used for fire training exercise, as discussed in the above paragraph.

Asbestos may be present in insulation materials, siding, roofing, and flooring, and must be properly removed and disposed. For more information on asbestos identification, removal and disposal, see “**Fire Training Burn Guidelines**” at <http://dnr.wi.gov/files/PDF/pubs/am/AM400.pdf>.

In addition to removing any asbestos, the Department (DNR) recommends you remove items containing refrigerants, mercury, PCBs and other materials, to reduce environmental impacts. The Fire Department may or may not want you to remove shingles, insulation and wire.

To identify and address environmental issues in a structure and find out how to properly handle any hazardous or problem materials, please review the Pre-Demolition Environmental Checklist, Publication WA651 <http://dnr.wi.gov/files/pdf/pubs/wa/wa651.pdf>.

Before the Fire Department burns the building, decide how you will clean up the burn site. Although you may leave the charred remains in place, consider any possible impacts to groundwater, surface water or your private water supply. You may choose to dispose of the resulting ash and charred remains in a landfill approved by the Department. Any remaining clean fill (brick, stone, concrete, reinforced concrete, and broken pavement) may be disposed on-site, in accordance with section NR 500.08(2)(a), Wis. Adm. Code ([see NR 500](#)). These materials can usually be pushed into the old basement or crawlspace. Waste disposal is prohibited in wetlands, surface waters, and floodplains.

Accidental Fires

When structures are lost to accidental fire or arson, there is no opportunity to remove hazardous materials prior to the burn, and the ash could contain a variety of hazardous substances. To protect the workers involved:

- Keep ash and debris wet to prevent materials from being windblown.
- Wear a personally-fitted dust mask for protection from windblown ash that may contain hazardous substances. If asbestos is suspected to have been present in the structure, wear a positive pressure air mask.
- If many materials are only partially burned, consider separating wastes at the site. This may reduce disposal costs, but also requires more labor and may expose workers to greater hazards.
- If the structure is still standing following the fire and is larger than a 5 unit apartment building or is a non-residential building, a Notification of Demolition [Form 4500-113](#) must be provided to the Department’s Air Management program ten days prior to the intended demolition.
- Remove any areas of suspected asbestos materials from the burn site as soon as possible. (See “Managing Burned Materials Containing Asbestos,” below.)
- Contact the DNR Asbestos Coordinator at (608) 266-3658 for asbestos testing criteria. Test(s) are required to document there is no asbestos in the ash.
- Test the ash to demonstrate that there is, indeed, no asbestos in it.
- If the ash has asbestos in it, it must be disposed of in a municipal solid waste landfill approved to accept asbestos. If not, the ash may be taken to any municipal solid waste landfill.

- If the structure didn't contain hazardous materials before it burned, contact your local DNR Regional Waste Contact to see if it may be appropriate to bury the ash on-site in an area away from surface water and groundwater. This is called an "Alternative Disposal Location". The DNR may request that you run additional chemical tests on the ash before approving this option.
- Any appliances or cooling equipment (refrigerators, air conditioners, freezers, dehumidifiers, heat pumps) should be hauled out or processed by a DNR-registered facility to assure the regulated refrigerants are removed properly. You can find these requirements and a listing of registered parties on the [Refrigerant Program](#) website.
- Dispose of unburned construction materials (painted wood, glass, plaster, siding and roofing) at a licensed construction and demolition landfill or municipal solid waste landfill.
- Dispose of clean inert materials (clean concrete, brick, masonry, unpainted and untreated wood) either on-site or in a location NOT in a wetland, surface water or floodplain. A local permit may be required. You may also take these items to a construction and demolition landfill or a municipal solid waste landfill.
- Transport the ash and any remaining unburned or partially burned debris to a landfill approved by DNR. If you wish to have a municipal waste hauler transport the ash via your usual curb site trash pick-up, contact your municipal (City/Village/Town) clerk and ask if this service is available.

Managing Burned Materials Containing Asbestos

If suspect asbestos materials are observed in or around the structure after it burns, the materials can either be sampled and tested at a laboratory to determine if they contain asbestos, or the materials can be presumed to contain asbestos and managed accordingly:

- Burned or partially burned asbestos materials are likely to be friable. Keep these materials wet. Put them into sealed bags. Take them to a landfill approved to accept asbestos.
- Cement-like siding that contains asbestos, but is in good condition, does not need to be bagged but must be taken to a municipal solid waste landfill approved to accept asbestos.

Managing Fire Remains from Allowable Burning

Wisconsin law allows residents to burn certain materials, on the property where the waste is generated, if not prohibited by local ordinance:

You MAY burn:

- Yard waste (such as leaves, weeds and small sticks only)
- Small quantities of dry combustible household rubbish, including paper, cardboard and clean untreated wood

Unless you have a "one time burning permit" (see s. NR 502.11(3), Wis. Adm. Code in ch. [NR 502](#)), you may NOT burn at home, but may take the following items to an approved woodburning facility:

- Unpainted and untreated wood, including dimensional lumber
- Stumps
- Trees without root balls
- Brush (such as limbs, bushes)

Woodburning facilities must be approved under s. NR 502.11, Wis. Adm. Code, and operated in conformance with s. 287.07, Wis. Stats.

For more information, see this Frequently Asked Question:

What can individual property owners legally burn?

<http://dnr.wi.gov/topic/OpenBurning/Owners.html>

DNR Regional Contacts

For additional information on waste management requirements and recycling options, contact the waste management staff at these DNR regional offices:

Northeast Region, Green Bay, 920-492-5800

Northern Region, Rhinelander, 715-365-8900

Northern Region, Spooner, 715-635-2101

South Central Region, Fitchburg, 608-275-3266

Southeast Region, Milwaukee, 414-263-8500

West Central Region, Eau Claire, 715-839-3700

DNR central office

Wisconsin Department of Natural Resources

P.O. Box 7921

Madison, Wisconsin 53707-7921

Bureau of Waste and Materials Management

Phone: 608-266-2111

Fax: 608-267-2768

Website: <http://dnr.wi.gov/topic/Waste/>

E-mail: DNRWasteMaterials@wisconsin.gov

Wisconsin Administrative Codes pertaining to solid waste

<http://dnr.wi.gov/topic/Waste/Laws.html>

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